LOUISVILLE - JEFFERSON COUNTY METRO GOVERNMENT
AIR POLLUTION CONTROL DISTRICT
850 Barret Ave., Louisville, Kentucky 40204
03 September 2006

TITLE V PERMIT SUMMARY

Company: Rohm and Haas Company

Plant Location: 4300 Camp Ground Road, Louisville, Kentucky 40216

Date App. Received: 22 April 1997 **Date Admin. Complete:** 20 June 1997

Date of Draft Permit: 03 September 2006 **Date of Proposed Permit:** ## xxxxxx 2003

District Engineer: Stephen Taylor **Permit No.:** 157-97-TV

Plant ID: 0189 **SIC Code:** 2821 **NAICS:** 325211 **AFS:** 00189

Introduction:

This permit will be issued pursuant to: (1) Regulation 2.16, (2) Title 40 of the Code of Federal Regulations Part 70, and (3) Title V of the Clean Air Act Amendments of 1990. Its purpose is to identify and consolidate existing District and Federal air requirements and to provide methods of determining continued compliance with these requirements.

Jefferson County is classified as an attainment area for lead (Pb), sulfur dioxide (SO_2), nitrogen oxides (NO_X), carbon monoxide (CO), particulate matter (PM), and particulate matter less than 10 microns (PM_{10}); unclassifiable for particulate matter less than 2.5 microns ($PM_{2.5}$); and is a moderate non-attainment area for ozone (O_3).

Application Type/Permit Activity:

[X] Initial Issuance
[ ] Permit Revision
- [ ]Administrative
- [ ]Minor
- [ ]Significant

[ ] Permit Renewal

Compliance Summary:

[X] Compliance certification signed [ ] Compliance schedule included
[ ] Source is out of compliance

I. Source Description

1. Class I Area Impacts: This source is not located in or near a Class I area.

2. Product Description: The source produces various coating and resins

3. Overall Process Description: The source produces various coatings and resins. The source produces steam for plant-wide use with gas-fired boilers.

4. Site Determination: There are no other facilities that are contiguous or adjacent and under common control.

5. Emission Unit Summary:

a. **KAC PRODUCTION UNIT:** Production of coatings and resins

i. U-KAC-Tank1 Emission Unit
ii. U-KAC-Tank2 Emission Unit
iii. U-KAC-Tank3 Emission Unit
iv. U-KAC-Tank4 Emission Unit
v. U-KAC-Reactor Emission Unit
vi. U-KAC-Load Emission Unit
vii. U-KAC-Powder Emission Unit
viii. U-KAC-DryPack Emission Unit
ix. U-KAC-Misc Emission Unit
x. U-KAC-D-PKG Emission Unit

b. **KB PRODUCTION UNIT:** Methyl Methacrylate Distillation

i. U-KB-Columns+ Emission Unit
ii. U-KB-Tanks1 Emission Unit

c. **KU PRODUCTION UNIT:** Acrylic Emulsions

i. U-KU-Load Emission Unit
ii. U-KU-Misc Emission Unit
iii. U-KU-Reactors Emission Unit
iv. U-KU-Storage1 Emission Unit
v. U-KU-Storage2 Emission Unit
vi. U-KU-Storage3 Emission Unit
vii. U-KU-Storage4 Emission Unit
viii. U-KU-Storage5 Emission Unit
ix. U-KU-Storage6 Emission Unit
x. U-KU-Storage7 Emission Unit
xi. U-KU-Storage8 Emission Unit

d. **KVK PRODUCTION UNIT:** Plastic Additives

i. U-KVK-Tanks1 Emission Unit
ii. U-KVK-E&FReact Emission Unit
iii. U-KVK-G&HReact Emission Unit
iv. U-KVK-Misc Emission Unit

e. **KV-1 PRODUCTION UNIT:** Plastic Additives

i. U-KV1-Feed1 Emission Unit
ii. U-KV1-Feed2 Emission Unit
iii. U-KV1-Dryer Emission Unit
iv. U-KV1-Pack Emission Unit

f. **KVP-1 PRODUCTION UNIT:** Plastic Additives Pelletizing System

U-KVP1-PELL Emission Unit

g. **KVP-2 PRODUCTION UNIT:** Plastic Additives Pelletizing System

i. U-KVP2-PELL Emission Unit
ii. U-KVP2-PKG Emission Unit

h. **KV2 PRODUCTION UNIT:** Plastic Additives

i. U-KV2-Feed Emission Unit
ii. U-KV2-Dryer Emission Unit
iii. U-KV2-50#bag Emission Unit

i. **KV-PA PRODUCTION UNIT:** Plastic Additives

i. U-KVPA-Feed Emission Unit
ii. U-KVPA-Dry Emission Unit
iii. U-KVPA-Pack Emission Unit

j. **KV3-R PRODUCTION UNIT:** Plastic Additives

i. U-KV3R-Tanks1 Emission Unit
ii. U-KV3R-Tanks2 Emission Unit
iii. U-KV3R-Tanks3 Emission Unit
iv. U-KV3R-I&JReac Emission Unit

k. **KV-3 PRODUCTION UNIT:** Plastic Additives

i. U-KV3-Dryer System Emission Unit
ii. U-KV3-Misc Emission Unit
iii. U-KV3-Tanks1 Emission Unit
iv. U-KV3-Tanks2 Emission Unit

l. **PLANT MAINTENANCE PRODUCTION UNIT:** Maintenance

U-PLANT-Misc Emission Unit

m. **UTILITIES PRODUCTION UNIT:** Utilities

i. U-UTIL-Steam Emission Unit
ii. U-UTIL-WW Emission Unit

6. **Fugitive Sources**: Fugitive emissions of dust from any part of the plant are subject to Regulation 1.14, *Control of Fugitive Particulate Emissions*. VOC HAP emissions from component leaks defined in the Polymers and Resins IV MACT are monitored by the leak detection and repair procedures outlined in 40 CFR 63 Subpart JJJ. The owner or operator shall not use the pressure test alternative compliance method for LDAR contained in 40 CFR 63.178(b).

7. **Title V Major Source Status by Pollutant:**

Pollutant	Actual Emissions 2004 Data (tpy)	Major Source Status (based on PTE)
CO	26.17	Yes
NO_X	245.64	Yes
SO_2	43.77	Yes
PM	14.83	Yes
VOC	112.37	Yes
Single HAP > 1 tpy		
Methyl Methacrylate	36.949	Yes*
Ethyl Acrylate	3.89	Yes*
1, 3-Butadiene	0.7035	Yes*
Toluene	9.377	Yes*
Xylene	2.69	Yes*
Methanol	1.82	Yes*
Styrene	2.846	Yes*
Total HAPs	61.6	Yes*

* Note: The source accepted limits on single and total HAP emissions in order to be a synthetic minor source dated October 31, 2005, before this date the source was major.

8. MACT Standards: This source was major for HAPs before October 31, 2005 and is subject to the following MACT regulations:

40 CFR 63 Subpart DD	National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations
40 CFR 63 Subpart OO	National Emission Standards for Tanks - Level 1
40 CFR 63 Subpart PP	National Emission Standards for Containers
40 CFR 63 Subpart JJJ	National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
40 CFR 63 Subpart DDDDD	Industrial and Commercial Boilers and Process Heaters
40 CFR 63 Subpart EEE	National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors

9. Applicable Requirements:

[X] PSD	[X] NSPS	[X] SIP	[X] Other
[X] NSR	[X] NESHAPS	[X] District-Origin	[X] MACT

10. Referenced Federal Regulations in Permit:

40 CFR 60 Subpart A	General Provisions
40 CFR 60 Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
40 CFR 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
40 CFR 61 Subpart V	National Emission Standards for Equipment Leaks (Fugitive Emission Sources)
40 CFR 63 Subpart A	General Provisions
40 CFR 63 Subpart DD	National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations
40 CFR 63 Subpart OO	National Emission Standards for Tanks - Level 1
40 CFR 63 Subpart PP	National Emission Standards for Containers
40 CFR 63 Subpart JJJ	National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
40 CFR 63 Subpart EEE	National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
40 CFR 68 Subparts A through H	Chemical Accident Prevention Provisions

II. Regulatory Analysis

1. Emission and Operating Caps: The source has the following plantwide emission limits:

a. The owner or operator shall limit each single plantwide HAP emissions to less than 10 tons per 12 consecutive month period; less than 5 tons per six calendar month period (January through June and July through December); and less than 2.6 tons per month; and

b. The owner or operator shall limit the total plantwide HAP emissions to less than 25 tons per 12 consecutive month period; less than 12.5 tons per six calendar month period (January through June and July through December); and less than 6.5 tons per month.

2. Compliance Status: The source signed and submitted a Title V compliance certification in its permit application.

3. Operational Flexibility: The source requested the following alternative operating scenarios:

Cold stacking/Controlled Modes for Emission Point E-KV2-03-330	U-KV2-Dryer
Cold stacking/Controlled Modes for Emission Point E-KVPA-09-125	U-KVPA-Dry
Coldstacking/Controlled Modes for the Regenerative Thermal Oxidizer	U-KAC and U-KB

4. Testing Requirements: RATA and CGA testing are required for the CEMS.

5. Monitoring, Record Keeping and Reporting Requirements: The source is required to monitor, maintain records of, and report on various operating parameters to demonstrate ongoing compliance with all applicable requirements. Compliance reporting is required semi-annually, except where underlying applicable regulations or permit conditions require more frequent reporting.

a. **PM:**

i. A preventive maintenance inspection of each control device (14-460, 14-451, 14-593, 14-295, 14-337, 14-429, 14-503, 14-446, 14-499, 14-571, 19-176, 19-195, 19-202, 19-225, 19-215, 19-265, 19-376, KACD-vac, 05-573, 05-741, 05-770, 05-850, 05-792, 05-810, 11-130, 11-134, 11-272, 03-260, 03-281, 03-392, 03-429, 03-437, 03-650, 03-545, 03-521, 09-650, 09-250, 17-376, 17-392, 17-399, 17-405, 17-419, 17-425, 17-432, 17-461,) shall be performed annually;

and process collectors (05-650 and 09-129) shall be inspected annually. This inspection shall consist of checking the clean air side tube sheet or dirty air side filter media visible from the access doors. If the check indicates leakage of particulate matter into the clean air side, further investigation shall be made to look for any tears or punctures, visible wear, excessive buildup or any other abnormal characteristics. Change out of filter media (or repairs) shall be done as necessary.

ii. For Emission Points (14-430, 14-445, 14-484, 14-593, 14-295, 14-337, 14-429, 14-453, 14-499, 14-570, 14-497, 19-170, 19-180, 19-195, 19-200, 19-210, 19-215, 19-220, 19-265, 19-285, 19-375, KACD-vac, 09-125, 60-100, and 60-500), the owner or operator shall perform a EPA Reference Method 5 stack test within the first two years after the issuance of this permit in order to demonstrate compliance with the emission standards. If Emission Point 60-500 only uses natural gas as fuel during the five-year permit term, then no stack test for PM will be required for that emission point.

iii. To demonstrate proper operation of control devices C-KV3-17-360 and C-KV3-17-370, a preventive maintenance inspection of each control device shall be performed annually. This inspection shall consist of examining the scrubber nozzles both with and without flow, and inspecting the interior of the scrubber. Cleaning shall be performed as necessary.

iv. The owner or operator shall maintain records of preventive maintenance performed and the date it was performed and make these records available to the District upon request. The owner or operator shall keep a record of each Method 5 stack test performed.

b. **Opacity:**

i. The owner or operator shall conduct a one-minute visible emissions survey once per day, during normal operation and daylight hours, of Emission Points (14-430, 14-484, 14-445, 14-593, 05-573, 05-600, 05-741, 05-770, 05-784, Bag, 11-115, 11-126, 11-154, 11-184, 11-194, 11-210, 11-236, 11-130, 05-810, 11-272, 03-260, 03-280, 03-330, 03-392, 03-429, 03-436, 03-662, 03-616, Bag-03-570, Bag-03-571, Bag-03-572, 09-125, 09-650, 09-231, 09-236, 09-405, 09-50#-361, 09-Bulk, 17-300, 17-330, 17-376, 17-390, 17-392, 17-S&G, 17-Pkg, 17-462,). No more than four Emission Points shall be observed simultaneously.

ii. The owner or operator shall conduct a monthly one-minute visible emissions survey, during normal operation and daylight hours, of

Emission Point 03-792. No more than four emission points shall be observed simultaneously.

iii. At Emission Points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 within 24 hours of the initial observation. If the opacity standard is exceeded, the owner or operator shall report the exceedance to the District, pursuant to Regulation 1.07, and take all practicable steps to eliminate the exceedance. Subsequent visible emission surveys shall be conducted as indicated in 5.b.i.

iv. The owner or operator shall maintain records of the results of all visible emission surveys and tests. Records of the results of any visible emissions survey shall include the date and the time of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given day, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

v. For emission Point 60-100, the owner or operator shall install, calibrate, maintain, and operate COMS and recording system for opacity.

v. For emission Point 60-500, the owner or operator shall monitor opacity by one of the following methods when the boiler is in service: (Construction Permit # 147-02-C, dated May 22, 2002)

1) Use a continuous opacity monitor if operational, at least once each calendar week to record the opacity; or

2) Conduct a one-minute visible emissions survey once per calendar week, during normal operation and daylight hours. Where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 within 24 hours of the initial observation. If the opacity standard is exceeded, the owner or operator shall report the exceedance to the District, pursuant to Regulation 1.07, and shall take all practicable steps to eliminate the exceedance. The owner or operator shall maintain records of the results of all visible emission surveys and tests. Records of the results of any visible emissions survey shall include the date and the time of the survey, the name of the person conducting the

survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given day, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

c. **VOC:**

Storage Tanks

i. The owner or operator shall equip the storage vessels 14-126, 04-521, 04-525, 04-880, with a permanent submerged fill pipe.

ii. There are no equipment standards that apply to emission points (14-122, 14-212, 14-326, 14-332, 14-338, 14-346, 14-352, 14-525, 14-535, 14-134, 14-142, 14-152, 14-160, 14-660, 14-682, 14-684, 14-685, 14-687, 14-688, 14-689, 14-690, 14-691, 14-695, 14-696, 14-116, 14-119, 14-190, 14-780, 14-790, 03-771, 03-800, 03-801, 03-850, 03-851, 03-860, 03-880, 03-881, 03-930, 03-931, 03-940, 13-800, 57-101, 58-101, 58-108, 58-109, 58-140, 05-120, 05-175, 05-181, 06-224, 03-233, 06-305, 06-459, 06-531, 66-226, 06-561 64-140, 64-141, 64-142, and 64-248) due to the vapor pressure as stored being less than 1.5 psia. The owner or operator of storage vessels shall maintain a list of the materials that are stored in the vessel(s) and the corresponding vapor pressure and if the contents of the storage vessels are changed to a material not on the list then a record shall be made of the new contents.

iii. The owner or operator of storage vessel (58-325) shall:

a) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

b) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty

and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the District in the inspection report required in §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. (40 CFR 60.113b(a)(2))

c) For vessels equipped with a double-seal system as specified in §60.112b(a)(1)(ii)(B):

1) Visually inspect the vessel as specified in Additional Condition 2.a.4) at least every 5 years; or

2) Visually inspect the vessel as specified in Additional Condition 2.a.2)

d) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in Additional Conditions 2.a.2) and 2.a.3)(ii) and at intervals no greater than 5 years in the case of vessels specified in Additional Condition 2.d.(3)(i).

e) Notify the District in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by Additional Condition 2.a.1) and 4) to afford the District the opportunity to have an observer present. If the inspection required by Additional Condition 2.a.4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in

advance or refilling the tank, the owner or operator shall notify the District at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the District at least 7 days prior to the refilling.

f) The owner or operator shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period.

g) The owner or operator shall keep a record of each inspection performed as required by 40 CFR 60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

Process emission points with control device monitoring

iv. For Emission Points (14-122, 14-126, 14-326, 14-332, 14-338, 14-346, 14-352, 14-525, 14-535, 14-236, 14-262, 14-400, 14-510, 14-540, 14-258, 14-290, 14-370, 14-376, 14-705, 14-706, 14-390, 03-810, 03-800, 03-801, 03-850, 03-851, 03-860, 03-880, 03-881, 03-930, 03-931, 04-521, 04-525, 04-880, 13-800, 57-101, 04-516, 04-520, 05-285, 05-290, 05-300, 05-305, 06-300, 06-330, 06-400, 06-430, 03-100, 03-115, 03-200, 03-215, 05-500, 05-510, 05-546, 05-515, 17-601, 17-630, 17-855, 17-860, 17-900, and 05-600), the owner or operator shall vent the emissions to the regenerative thermal oxidizer. The owner or operator shall monitor the following parameters:

a) The minimum combustion temperature for the Thermal Oxidizer shall be 1455°F as specified by the required stack testing results submitted on August 14, 2003. The owner or operator can retest the thermal oxidizer to establish a different temperature. The averaging period for the combustion temperature shall be hourly.

b) The owner or operator shall monitor the average combustion temperature for the Thermal Oxidizer. The hourly average shall be computed from 4 or more data points equally spaced over each one hour period.

c) The thermal oxidizer shall be equipped with temperature indicators for monitoring the combustion temperature..

d) Destruction of VOC's shall meet or exceed 95%, during normal (primary) operation.

e) The system shall be equipped with a failsafe device designed to interrupt vent gas flow and vent to a cold stack bypass should system experience an abnormal episode such as flame loss.

f) The vent gas stream shall not bypass the thermal oxidizer while in operation for more than 1.2 hours during any twenty-four hour day. The twenty-four hour day is the day starting at 00:00 am and running to 23:59 pm.

g) The owner or operator shall keep daily records of the average hourly combustion temperature for the combustion zone of the Thermal Oxidizer (C-KAC-14-723), once every 15 minutes of operation.

h) During each time the Regenerative Thermal Oxidizer (C-KAC-14-723) is bypassed while VOC emissions are being vented to it, the owner or operator shall keep a record of the duration and quantity of VOC emissions to demonstrate compliance with Additional Condition 2.a.vi.

i) The owner or operator shall monthly calculate the monthly and 12 consecutive month VOC emissions.

v. The owner or operator shall demonstrate compliance with the VOC limits of the KB distillation columns (03-810) by one of the following methods:

a) Monitoring proper operation of the control system, consisting of two condensers (03-760 and 03-761) and a venturi scrubber (03-762). The owner or operator shall monitor the flow rate, temperature, and pressure of the inlet stream to the control system at least once per day and using this data determine the inlet VOC mass flow rate. The flow rate, temperature, and pressure of the outlet stream from the control system shall be monitored at least once per day and using this data determine the outlet VOC mass flow rate. The two VOC mass flow rates shall be compared at least daily to demonstrate compliance with at least 85% removal of the VOCs; or

b) Monitor proper operation of the control system, consisting of two condensers (03-760 and 03-761) and a Regenerative Thermal Oxidizer (RTO) (C-KAC-14-723). The owner or operator shall comply with the following monitoring conditions:

1) The minimum combustion temperature for the Thermal Oxidizer shall be 1455°F as specified by the required stack testing results submitted on August 14, 2003. The owner or operator can retest the thermal oxidizer to establish a different temperature. The averaging period for the combustion temperature shall be hourly.

2) The owner or operator shall monitor the average combustion temperature for the Thermal Oxidizer. The hourly average shall be computed from 4 or more data points equally spaced over each one hour period.

3) The thermal oxidizer shall be equipped with temperature indicators for monitoring the combustion temperature.

4) Destruction of VOC's shall meet or exceed 95%, during normal (primary) operation.

5) The system shall be equipped with a failsafe device designed to interrupt vent gas flow and vent to a cold stack bypass should system experience an abnormal episode such as flame loss.

6) The vent gas stream shall not bypass the thermal oxidizer while in operation for more than 1.2 hours during any twenty-four hour day. The twenty-four hour day is the day starting at 00:00 am and running to 23:59 pm.

vi. If the venturi scrubber (03-762) is being utilized to demonstrate compliance, the owner or operator shall keep the following records daily for control devices (03-760 (Condenser), 03-761 (Condenser), and 03-762 (Wet Scrubber):

a) Date and time of monitoring;

b) Flow, temperature, and pressure results at the inlet and outlet of the control system; and

c) Calculated recovery/removal efficiency

vii. If the Regenerative Thermal Oxidizer (C-KAC-14-723) is being utilized to demonstrate compliance, the owner or operator shall keep the following records:

a) The owner or operator shall keep daily records of the average hourly combustion temperature for the combustion zone of the Thermal Oxidizer (C-KAC-14-723), once every 15 minutes of operation.

b) During each time the Regenerative Thermal Oxidizer (C-KAC-14-723) is bypassed while VOC emissions are being vented to it, the owner or operator shall keep a record of the duration and quantity of VOC emissions.

Loading Racks

viii. For each of the Emission Points 14-151, 14-130, 14-366, 14-390, 14-530, 04-516, 57-101-89, 05-460, 05-479, 05-461, 07-100, 07-110,

a) The owner or operator shall keep daily records of the total volatile organic material (VOM) with a vapor pressure greater than or equal to 1.5 psia under actual storage conditions loaded on days that VOM loading occurs.

b) The owner or operator shall maintain a list of the materials that are loaded and the corresponding vapor pressure and if a material is changed to a material not on the list then a record shall be made of the new material.

Process equipment with one-time demonstrations

ix. The owner or operator has performed a one-time compliance demonstartion for the following emission points 05-346, 06-290, 06-500, 06-510, 08-220, 08-227, KU-Drum, and KU-Used Drum. Therefore, there is no monitoring, recordkeeping, or reporting for these emission points.

Solvent Metal Cleaning

x. For Emission Point (PW), the owner or operator shall maintain records that include the following for each purchase: (Regulation 6.18, section 4.4.2)

1) The name and address of the solvent supplier,
2) The date of the purchase,

3) The type of the solvent, and
4) The vapor pressure of the solvent measured in mm Hg at 20°C (68°F).

Gasoline Dispensing

xi. For Emission Point (71202A), the owner or operator shall keep a record of the amount of throughput of gasoline per month to determine compliance with Additional Condition 1.a.i.6). (Regulation 6.40, section 3.1.1)

Bag Printing

xii. The owner or operator shall keep a monthly record of the amount of VOC containing materials used and calculate the monthly and 12 consecutive month VOC emissions.

Utilities

xiii. For Emission Point 60-100, the owner or operator shall, once per five-year permit term, conduct a performance test to demonstrate compliance with Additional Condition 1.e.i.2). The owner or operator shall use 40 CFR 63.1208 for defining test methods for evaluating compliance with the 99.99% DRE. The test stipulated by 40 CFR 63.1206(b)(7) shall be counted for compliance with this requirement if it is performed within the five year permit term.

d. **SO_2**

For Emission Points 60-100 and 60-500, the owner or operator shall confirm the fuel oil combusted has a sulfur content of less than 0.5% by weight by either pulling a sample and having it tested upon receipt of shipment or by certification by the supplier.

e. **NO_x**

i. For Emission Point 60-100, the owner or operator shall maintain records of the following information for each steam generating unit operating day: (40 CFR 60.49b(g))

1) Calendar date. (40 CFR 60.49b(g)(1))

2) The average hourly nitrogen oxides emission rates (expressed as NO_2) (ng/J or lb/million Btu heat input) measured or predicted. (40 CFR 60.49b(g)(2))

3) The 30-day average nitrogen oxides emission rates (ng/J or lb/million Btu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days. (40 CFR 60.49b(g)(3))

4) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards under 40 CFR 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken. (40 CFR 60.49b(g)(4))

5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken. (40 CFR 60.49b(g)(5))

6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data. (40 CFR 60.49b(g)(6))

7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted. (40 CFR 60.49b(g)(7))

8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system. (40 CFR 60.49b(g)(8))

9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3. (40 CFR 60.49b(g)(9))

10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR 60 Appendix F, Procedure 1. (40 CFR 60.49b(g)(10))

ii. For Emission Point 60-100, the owner or operator shall keep records to include:

1) The inspection of the air ratio control damper tee handle setting and of the flue gas recirculation line valve opening position indicator setting shall be recorded once per eight hour shift. (40 CFR 60.49b(t)(3)(i))

2) The CEMS data required by 40 CFR 60.48b(b) for NO_x emissions, shall be kept. (40 CFR 60.49b(t)(4)(ii))

iii. For Emission Point 60-100, the owner or operator shall maintain monthly records of NO_x emissions.

f. **Boiler 100**

For Emission Point 60-100, CEMS, continuous recording equipment, and parameter monitors shall be installed, calibrated, tested, and operated according to District Regulation 7.01 and Appendix B of 40 CFR 60 as follows:

i. The owner or operator shall install, calibrate, maintain, and operate CEMS and recording systems for opacity, nitrogen oxides, carbon monoxide, and either oxygen or carbon dioxide emissions.

ii. The span value of all continuous monitoring systems shall be subject to approval by the District.

iii. When simultaneously burning fossil fuel and LWDF, the owner or operator shall comply with the following:

1) The delivery pipe to the liquid waste burner shall be equipped with a flow indicator capable of measuring up to the maximum demand of the burner and shall be equipped with a continuous recorder; and

2) Emission Point 60-100 shall be equipped with an indicating pyrometer or thermometer, in or near the superheater section, to measure the combustion chamber temperature, and shall be equipped with a continuous recorder and have a total system accuracy of ± 25 °F or better.

iv. During any performance tests required by this permit and at such other times as may be required by the District, the owner or operator may be required to conduct continuous monitoring system performance evaluations. A copy of a written report of the results of such tests shall be furnished to the District with the quarterly excess emissions report or within sixty (60) days of completing the tests, whichever date occurs later. At a minimum, continuous monitoring system performance evaluations (relative accuracy) shall be conducted at least annually. They shall be conducted pursuant to the following specifications and procedures contained in 40 CFR 60 Appendix B:

1) Continuous monitoring systems for measuring opacity of emissions shall comply with Performance Specification 1.

2) Continuous monitoring systems for measuring nitrogen oxides emissions shall comply with Performance Specification 2.

3) Continuous monitoring systems for measuring the oxygen content or carbon dioxide content of effluent gases shall comply with Performance Specification 3.

4) Continuous monitoring systems for measuring CO emissions shall conform to a plan using 40 CFR Part 266 Subpart H Appendix IX as a guide.

v. For the temperature sensor that is used to activate the automatic waste feed cutoff, there will be a duplex temperature sensor in the same temperature probe. If the difference between the temperature readings of the duplex temperature sensors exceeds 25 °F, the owner or operator shall repair or replace the temperature sensor within seven (7) boiler operating days. If the faulty temperature sensor is not replaced or repaired within 7 boiler operating days, the owner or operator shall provide written notification to the District. The notification report shall include the identification of the problem and actions being taken to correct the problem. LWDF can continue to be burned in this facility as long as one of the temperature sensors in the temperature probe is functioning properly. At no time shall the owner or operator cause or allow the combustion of LWDF if both temperature sensors in the temperature probe being used to activate the automatic waste feed cutoff are not functioning properly.

vi. The owner or operator shall perform an annual analysis on each type of the LWDF processed for the presence of total chlorides and the following metals: arsenic, barium, beryllium, cadmium, chromium, lead, mercury, selenium, and silver. The District may require the owner or operator to perform an analysis for the presence of polychlorinated biphenyls and dioxins for each new waste stream or if the annual total chlorides analysis for a waste stream specified in Additional Condition 1.h.iv. indicates a higher than normal total chlorides concentration. The assumption shall be made, for compliance determination with 40 CFR 63 Subpart EEE and Regulation 5.12, that 100% of total chlorides and metals are emitted to the atmosphere through the stack, unless stack testing data indicate otherwise. The concentration of these materials shall not exceed the ASL or TAL as specified in Regulation 5.12 until compliance with 40 CFR 63 Subpart EEE is demonstrated. During the remainder of the year each type of LWDF will be analyzed as follows:

1) MMA still bottoms, acrylic resin residue, and waste organics LWDF materials will be analyzed on a monthly basis for only those constituents in Additional Condition 2.h.vi. which are detected when the annual retesting for all listed constituents is performed or are by process knowledge expected to be a component of the material. The analysis shall be performed on a seven day composite sample of the LWDF material fed to Emission Point 60-100. The testing frequency of those constituents detected in the annual retesting can be reduced if the statistical criteria in Additional Condition 2.h.vi.3) are satisfied.

2) Each batch of the LWDF materials which are listed in Additional Condition 1.h.iv. and which are not covered in Additional Condition 2.h.vi.1) will be analyzed on a monthly basis, when processed, for only those constituents listed in Additional Condition 2.h.vi. which are detected when the annual retesting for all listed constituents is performed or are by process knowledge expected to be a component of the material. The testing frequency of those constituents detected in the annual retesting can be reduced if the statistical criteria in Additional Condition 2.h.vi.3) are satisfied. Until then each type of LWDF material covered by this condition will be sampled and analyzed for the detected constituents.

3) The reduction of testing frequency for detected constituents in the annual retesting required in Additional Conditions 2.h.vi.1) and 2.h.vi.2) will be granted if the following conditions are met:

   a) At the commencement of this program at least thirty (30) samples have been taken and analyzed for the LWDF material.

   b) A 95% confidence level, that the probability of a batch exceeding the allowable limit for the constituent is less than 0.05, is obtained. The methods to determine this confidence level will follow standard statistical practices, as presented in, for example, Statistical Intervals: A Guide for Practitioners, by G. J. Hahn and W. Q. Meeker or equivalent methods.

   When the above two conditions have been met for a particular constituent of a LWDF material, a determination will be made on the advisability and extent of a reduced sampling and testing program for that constituent in that LWDF material. This

determination shall be submitted to and approved by the District before its implementation

vii. The owner or operator shall for the fail safe systems:

1) Monitor the burner flame to demonstrate compliance with Additional Condition 1.h.v.2)

2) Monitor the hourly rolling average temperature in or near the superheater section of the boiler to demonstrate compliance with Additional Condition 1.h.v.3)

3) Monitor the hourly rolling average main gun and side gun feed rates, to demonstrate compliance with Additional Condition 1.h.v.4)

g. **CO**

For Emission Point 60-100, the owner or operator shall keep records of CEMS output, and make these records available to the District upon request.

6. Off-Permit Documents:

Rule Effectiveness Plan	20 February 1995
Risk Management Plan	9 June 1999
1.05 Plan	7 November 1993
TAP One-time Demonstration	1 August 2003
VOC One-time Demonstration	1 August 2003
PM One-time Demonstration	1 August 2003
VOC Retro-BACTs for Regulation 7.25	1 August 2003
VOC BACT for U-KAC Reactor	3 July 2001
VOC BACT for U-KAC Loading	17 April 1997
VOC BACT for U-KAC-D Pelletizer	4 February 1999
VOC BACT for KV1 spray dryer	9 November 1990
VOC BACT for KV3 Stage I dryer	25 May 1990

The District considers an “off-permit document” as a document on which a source’s compliance with given regulation(s) is contingent or which contains regulatory requirement(s), but is only referenced in a source’s Title V Operating Permit. The designation “off-permit document” shall be made at the District’s discretion, and may include, but not be limited to, documents such as Regulation 1.05 VOC compliance plans, PMPs, MOCS; or other documents which are too voluminous to be included in a source’s Title V Operating Permit, as determined by the District.

III. Other Requirements

1. **Temporary Facilities:** The source did not request to operate any temporary facilities.

2. **Short Term Activities:** The source did not report any short term activities.

3. **Compliance Schedule/Progress Reports:** The source has certified compliance with all applicable requirements; therefore, no compliance schedule or progress reports are necessary.

4. **Emissions Trading:** The source does participate in emissions trading, and has existing Emissions Bank credits of 419.0 tpy for SO_2 and 677 tpy for NO_x.

5. **Acid Rain Requirements:** The source is not subject to the Acid Rain Program.

6. **Stratospheric Ozone Protection Requirements**: Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. This source does not manufacture, sell, or distribute any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

7. **Prevention of Accidental Releases 112(r):** The source does manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount. The required Risk Management Plan was submitted on June 18, 1999.

8. **Insignificant Activities:** The following activities, as referenced in the source's Title V Permit Application, have been determined by the District to be insignificant.

Insignificant Activities		
Description	**Quantity**	**Basis**
Internal combustion engines fixed or mobile	2	Regulation 2.02, section 2.2
Brazing, soldering, or welding equipment	various	Regulation 2.02, section 2.3.4
Emergency relief vents, stacks, and ventilating systems (not otherwise regulated)	69	Regulation 2.02, section 2.3.10
Lab ventilating and exhausting systems for nonradioactive materials	20	Regulation 2.02, section 2.3.11
Portable Diesel or Gasoline Storage Tank <500 gal	1	Regulations 2.02, section 2.3.23
Storage Tanks containing fuel or lubricating oils with v.p. <10 mmHg at 20°C	3	Regulations 2.02, section 2.3.9.2

Insignificant Activities		
Description	**Quantity**	**Basis**
Miscellaneous Drums and Totes	various	Regulation 2.02, section 2.3.24
Maintenance Painting Operation	1	EPA White Papers
Storage Tanks of non-regulated materials	8	No Known Regulated Emissions
VOC Storage Tanks 250 gallons or less	24	Regulation 2.02, section 2.3.24
Pressurized VOC Storage Vessels (57-101)	7	Regulation 2.02, section 2.3.26
Combustion sources < 10 MMBtu/hr	4	Regulation 2.02, section 2.1.1
Processing equipment for non-regulated equipment	various	No known regulated pollutants
Product filter pots for water-based products	98	No known regulated pollutants
Whitewater sewer system	1	No known regulated pollutants

A. Insignificant Activities are only those activities or processes falling into the general categories defined in Regulation 2.02, section 2, and not associated with a specific operation or process for which there is a specific regulation. Equipment associated with a specific operation or process (Emission Unit) shall be listed with the specific process even though there may be no applicable requirements. Information contained in the permit and permit summary shall clearly indicate that those items identified with negligible emissions have no applicable requirements.

B. Activities identified in Regulation 2.02, section 2, may not require a permit and may be insignificant with regard to application disclosure requirements but may still have generally applicable requirements that continue to apply to the source and must be included in the Title V permit.

a. No facility, having been designated as an insignificant activity, shall be exempt from any generally applicable requirement which shall include a 20% opacity limit for facilities not otherwise regulated.

b. No visible emission surveys or other monitoring shall be required for facilities designated as insignificant activities.

C. The Insignificant Activities table is correct as of the date of the permit was proposed for review by the USEPA, Region 4. The company shall submit an updated list of insignificant activities annually with the Title V compliance certification pursuant to District Regulation 2.16, section 4.3.5.3.6.